

To: City of Torrance Planning Department  
 From: Elaina Chambers, Alex J. Garber, EPD Solutions, Inc.  
 Date: 10/4/2024  
 Re: Air Quality, Energy, and Greenhouse Gas Impact Analysis for 2421 W 205<sup>th</sup> Street  
 Torrance Project, EPD Project Number 24-007

This technical memorandum presents an analysis of the air quality, energy, and greenhouse gas (GHG) impacts for the 2421 W 205<sup>th</sup> Street Torrance Project (proposed Project) located at 2421 W. 205<sup>th</sup> Street, in the City of Torrance. The Project site encompasses 8.21 total acres and is comprised of two parcels identified as Assessor Parcel Numbers (APNs) 7352-018-067 and -068. Project applicant is proposing to demolish the five existing two-story general office buildings (totaling 69,288 square feet [SF]) and redevelop the site with two speculative warehouse buildings. Building 1 would be 79,609 SF and Building 2 would be 64,324 SF for a total building area of 143,933 SF. The buildings would support warehousing, manufacturing, and office uses. Development of the site would also include landscaping, utility connections, stormwater facilities, and pavement of parking areas and drive aisles. The proposed Project site is shown in Figure 1, *Project Site Plan*, included at the end of this document.

To support the CEQA document, this report analyzes the proposed Project's construction and net operational impacts to air quality (emission of criteria pollutants), energy usage, and GHG using the California Emissions Estimator Model (CalEEMod Version 2022.1) land use emission model and Emission Factor (EMFAC Version 2021) model. Table 1, *Construction Schedule*, shows the estimated construction schedule, which is expected to last approximately 15 months.

**Table 1: Construction Schedule**

Activity	Start Date	End Date	Total Working Days
Demolition	9/1/2025	10/17/2025	35
Site Preparation	10/20/2025	10/31/2025	10
Grading	11/3/2025	11/28/2025	20
Building Construction	12/1/2025	10/16/2026	230
Paving	10/19/2026	11/13/2026	20
Architectural Coating	11/16/2026	12/11/2026	20

Source: CalEEMod Output Sheets (see Attachment B).

The following non-default assumptions and adjustments were used in the CalEEMod emission model for this analysis:

- **Land Use:** The lot acreage was adjusted to match the site plan provided by the client.
- **Construction:** It was assumed that all equipment would be used for 8 hours per workday. Tractors/loaders/backhoes were replaced with crawler tractors in the site preparation and grading phases.
- **Demolition:** The demolition phase was extended from 20 days to 35 days, due to the anticipated volume of debris to be exported.

- Demolition: The demolition of the existing buildings and hardscape is anticipated to amount to 20,164 tons of debris. See Attachment A for demolition calculations.
- Operations: The trip rate was adjusted to match the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 11th Edition, auto trip rates for manufacturing and warehouse trips. Truck trip lengths were obtained from the WAIRE Menu Technical Report Appendix B, *Truck Trip Lengths*.<sup>1</sup> Vehicle splits were obtained using the daily trip total from EPD Solutions' 2421 W 205th Street Torrance Vehicle Miles Traveled (VMT) Screening Analysis.<sup>2</sup> Truck trips were applied to the User Defined Industrial land use in CalEEMod, where 2-axle trucks with a 15.3 mile trip length and a 17.28 trip percentage were applied to non-residential H-W (home to work trips); 3-axle trucks with a 14.2 mile trip length and a 20.99 trip percentage were applied to non-residential W-O (work to other); and 4+ axle trucks with a 40 mile trip length and a 61.73 trip percentage were applied to non-residential O-O (other to other trips).
- Operations: For fleet mix, vehicle splits were updated to match the operational trip generation provided by the VMT Screening Analysis that was prepared for the Project. User Defined Industrial was utilized to analyze 100% of trucks (heavy-heavy duty truck [HHDT], medium-heavy duty trucks [MHDT], light-heavy duty trucks 1 and 2 [LHDT1 and LHDT2]), and unrefrigerated warehouse and manufacturing land use defaults were normalized using the CalEEMod defaults to analyze 100% passenger vehicles only.

## SUMMARY OF AIR QUALITY, ENERGY, AND GHG IMPACTS

### Air Quality

The proposed Project's maximum daily emissions (regional and local) for construction and operation would not exceed the South Coast Air Quality Management District's (SCAQMD) regional thresholds of significance. In addition, all construction activities would comply with applicable SCAQMD rules and regulations, including Rule 402, Rule 403, and Rule 1113:

- Rule 402, *Public Nuisance*: Prohibits the discharge of air contaminants that cause injury, nuisance, or annoyance to the public or damage to property.
- Rule 403, *Fugitive Dust*: Aims to minimize fugitive particulate matter dust emissions during construction activities.
- Rule 1113, *Architectural Coatings*: Allows only low-volatile organic compounds (VOC) paints to be used.

The construction and operation of the proposed Project would not exceed SCAQMD thresholds for any of the six criteria pollutants. Projects that do not exceed the regional thresholds are assumed to not have a significant impact on both a project level and cumulative level. The proposed Project aligns with SCAQMD'S 2022 Air Quality Management Plan (AQMP), reflecting adherence to regional air quality management goals and standards. Furthermore, odors produced by construction and operation of the proposed Project would be minimal and comply with SCAQMD Rule 402. Therefore, the proposed Project would have less-than-significant air quality impacts.

### Energy

The proposed Project's energy consumption for construction activities related to redevelopment of the site for new industrial warehousing uses would be conditioned to require compliance with existing fuel standards, machinery efficiency standards, and California Air Resources Board (CARB) requirements that limit idling of

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<sup>1</sup> SCAQMD. (2021). *WAIRE Implementation Guide*, Appendix B: WAIRE Menu Technical Report.  
<https://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/waire-implementation-guidelines.pdf?sfvrsn=12>.

<sup>2</sup> EPD Solutions. (2024) 24-007 2421 W 205th Street Torrance Vehicle Miles Traveled (VMT) Screening Analysis.

trucks. The Project would comply with the State CEQA Guidelines for energy consumption thresholds (a), concerning wasteful, inefficient and overconsumption of energy in projects, and (b), project design impeding renewable energy development growth, respectively:

- (a) Construction activities related to the proposed Project and the associated infrastructure are not expected to result in demand for fuel greater on a per-unit-of-development basis than any other development projects in Southern California
- (b) The proposed Project would be required to meet the CCR Title 24 energy efficiency standards, comply with all applicable City energy codes and the Project buildings would be solar ready in compliance with current Title 24 requirements. Therefore, the Project would not inhibit the use of and would allow for future flexibility relating to renewable energy

The proposed Project would consume less electricity and gasoline fuel than the five office buildings currently occupying the site but would consume more natural gas and diesel than the site's existing use. Through compliance with existing standards, the Project would not result in a fuel demand on a per-development basis that is greater than other development projects in Southern California. There are no unusual Project characteristics that would cause the use of construction equipment that would be less energy efficient compared with other similar construction sites in other parts of the state. Therefore, the construction and operation of the Project would result in a less-than-significant impact related to inefficient, wasteful, or unnecessary energy use, and no mitigation would be required.

### **GHG Emissions**

The proposed Project's construction and operational GHG emissions would total 2,030 metric tons of carbon dioxide equivalent (MTCO<sub>2e</sub>). Considering the emissions resulting from the existing buildings, the net new emissions generated by the proposed Project would result in an increase of 877 MTCO<sub>2e</sub> per year. The Project's net and total GHG emissions are below the SCAQMD's significance threshold of 3,000 MTCO<sub>2e</sub> per year. Additionally, the proposed Project would be consistent with the city's GHG reduction plans and policies within the General Plan and the 2022 Scoping Plan. Therefore, the Project would have a less-than-significant impact on GHG emissions.

## AIR QUALITY

### Methodology and Model Inputs

To calculate the operational impacts, the air quality emissions from the existing land use were estimated using CalEEMod. SCAQMD recommends in the WAIRE Menu Technical Report (Appendix B of the WAIRE Implementation Guidelines) to use 40-mile trip lengths for 4+ axle trucks, 14.2-mile trip lengths for 3-axle trucks, and 15.3-mile trip lengths for 2-axle trucks. Therefore, the User Defined Industrial CalEEMod land use was added to the model to specifically analyze truck operational emissions with the SCAQMD recommended truck trip lengths. The passenger vehicles were analyzed using the CalEEMod default trip distance information.<sup>3</sup>

### Regional Emissions

The SCAQMD has adopted maximum daily emission thresholds (pounds/day) for the criteria pollutants during construction and operation of a project.<sup>4</sup> While incremental regional air quality impacts of an individual project are generally very small and difficult to measure, SCAQMD's regional maximum emission thresholds set standards to reduce the burden of SCAQMD to attain and maintain ambient air quality standards. The regional thresholds apply to the criteria pollutants mentioned in Table 2 and Table 3 along with the CalEEMod Project emissions. These emission thresholds include the Project emissions generated both from onsite sources (such as off-road construction equipment and fugitive dust) and off-site sources (vehicle travel arriving to and leaving from the site). To calculate the operational impacts, the air quality emissions from the existing land use were estimated using CalEEMod and credit was taken from the existing office buildings on the site. As shown in Table 2 and Table 3, the Project would generate emissions below the SCAQMD thresholds, and therefore result in less-than-significant regional air quality impacts.

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<sup>3</sup> EPD utilized the Metropolitan Planning Organization (MPO) default data provided in CalEEMod, as it provides more accurate trip length data than the region-wide CSTDM trip length data.

<sup>4</sup> SCAQMD. (March 2023). *South Coast AQMD Air Quality Significance Thresholds*. Referenced at <https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25>.

**Table 2: Regional Construction Emission Estimates**

Construction Activity	Maximum Daily Regional Emissions (pounds/day)					
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
2025						
Demolition	0.7	16.3	10.3	0.1	11.3	2.2
Site Prep	4.1	37.5	33.2	0.1	7.7	4.5
Grading	2.4	20.7	20.3	0.0	3.5	2.0
Building Construction	1.5	12.3	17.1	0.0	1.2	0.6
Maximum Daily Emissions	4.1	37.5	33.2	0.1	11.3	4.5
2026						
Building Construction	1.4	11.6	17.2	0.0	1.1	0.5
Paving	1.5	7.2	10.5	0.0	0.5	0.3
Architectural Coating	69.9	1.2	2.0	0.0	0.1	0.1
Maximum Daily Emissions	69.9	37.5	33.2	0.1	11.3	4.5
<b>Maximum Daily Emission 2025-2026</b>	<b>69.9</b>	<b>37.5</b>	<b>33.2</b>	<b>0.1</b>	<b>11.3</b>	<b>4.5</b>
SCAQMD Significance Thresholds	75	100	550	150	150	55
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Notes: ROG = reactive organic gases, NO<sub>x</sub> = nitrogen oxides, CO = carbon monoxide, SO<sub>2</sub> = sulfur dioxide, PM<sub>10</sub> = particulate matter 10 microns in diameter, PM<sub>2.5</sub> = particulate matter 2.5 microns in diameter  
Source: CalEEMod Output Sheets (see Attachment B).

**Table 3: Regional Operational Emission Estimates**

Operational Activity	Maximum Daily Regional Emissions (pounds/day)					
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Mobile	1.1	7.9	12.2	0.1	4.2	1.2
Area	4.5	0.1	6.3	<0.1	0.0	0.0
Energy	0.1	1.0	0.9	<0.1	0.1	0.1
<b>Total Project Operational Emissions</b>	<b>5.7</b>	<b>9.0</b>	<b>19.4</b>	<b>0.1</b>	<b>4.3</b>	<b>1.3</b>
Existing Use Operational Emissions	5.1	3.5	29.9	0.1	5.9	1.6
<b>Net New Emissions</b>	<b>0.6</b>	<b>5.5</b>	<b>-10.5</b>	<b>&lt;0.1</b>	<b>-1.6</b>	<b>-0.3</b>
SCAQMD Significance Thresholds	55	55	550	150	150	55
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Notes: ROG = reactive organic gases, NO<sub>x</sub> = nitrogen oxides, CO = carbon monoxide, SO<sub>2</sub> = sulfur dioxide, PM<sub>10</sub> = particulate matter 10 microns in diameter, PM<sub>2.5</sub> = particulate matter 2.5 microns in diameter  
Source: CalEEMod Output Sheets (see Attachment B).

## Local Emissions

Localized significance thresholds (LSTs) were also adopted by the SCAQMD due to project-related construction or operational air emissions having the potential to exceed the State and national air quality standards in the project vicinity, while not exceeding the regional emission significance thresholds adopted by the SCAQMD. These thresholds set the maximum rates of daily construction or operational emissions from a project site that would not exceed a national or State ambient air quality standard.<sup>5</sup> The differences between regional thresholds and LSTs are as follows:

1. Regional thresholds include all sources of project construction and operational emissions generated from onsite and offsite emission sources whereas the LSTs only consider the emissions generated from onsite emission sources.
2. LSTs only apply to carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), while regional thresholds include both reactive organic gases (ROG) and sulfur dioxide (SO<sub>2</sub>).
3. Regional thresholds apply to emission sources located anywhere within the SCAQMD whereas the LSTs are location dependent and rely on the size of the project and emission location relative to the nearest sensitive receptor.

SCAQMD provides screening tables (Appendix C of the SCAQMD 2008 *Final Localized Significance Threshold Methodology*) for projects that disturb less than or equal to 5 acres in a day.<sup>6</sup> These tables were created to easily determine if the daily emissions of NO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub> from a project could result in a significant impact to the local air quality. The thresholds are determined by:

- Source receptor area (SRA), which is the geographic area within the SCAQMD that can act as both a source of emissions and a receptor of emission impacts (the Project is located within SRA 3, Southwest Los Angeles County Coastal);
- Size of grading disturbance (construction)/size of the project (operation); and
- Distance to the nearest sensitive receptor, which is defined as an individual who is most susceptible to negative health effects when exposed to air pollutants and includes children, the elderly, and adults with chronic health issues. Locations for such receptors include residences, schools, elderly care centers, and hospitals.

Table 4, *Construction Equipment Modeled in CalEEMod and Acres Disturbed per Day*, shows the amount of grading that would occur during the demolition, site preparation, and grading phases. As can be seen in Table 4, the phase with the most ground disturbance would be the grading phase, with a maximum of 3.5 acres of ground disturbance per day. Distance to the nearest sensitive receptor also determines the emission thresholds. The sensitive receptors closest to the Project site include residential homes about 6 meters (20 feet) north of the Project's northern boundary; therefore, the construction and operation emission thresholds for 25 meters was used, as the lowest threshold provided. Table 5, *Localized Construction Emission Estimates*, show the thresholds and estimated maximum daily construction emissions for the proposed Project. As shown in Table 5, the proposed Project would not exceed the SCAQMD LST thresholds and would therefore have a less-than-significant localized construction air quality impact.

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<sup>5</sup> SCAQMD 2008: Final Localized Significance Threshold Methodology. Referenced at <http://www.aqmd.gov/docs/defaultsource/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf>.

<sup>6</sup> SCAQMD 2008: Final Localized Significance Threshold Methodology Appendix C. Referenced at <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/appendix-c-mass-rate-lst-look-up-tables.pdf?sfvrsn=2>.

**Table 4: Construction Equipment Modeled in CalEEMod and Acres Disturbed per Day**

Activity	Equipment Type	Equipment Quantity	Operating Hours per Day	Acres Disturbed per piece of Equipment per Day	Acres Disturbed per Day
Demolition	Concrete/Industrial Saws	1	8	0	0
	Excavators	3	8	0	0
	Rubber Tired Dozers	2	8	0.5	1.0
Total Acres Disturbed Per Day					
Site Preparation	Rubber Tired Dozers	3	8	0.5	1.5
	Crawler Tractors	4	8	0.5	2.0
Total Acres Disturbed Per Day					3.5
Grading	Excavators	1	8	0	0
	Graders	1	8	0.5	0.5
	Rubber Tired Dozers	1	8	0.5	0.5
	Crawler Tractors	3	8	0.5	1.5
Total Acres Disturbed Per Day					2.5
Maximum Acres Disturbed Per Day					3.5

Source: CalEEMod Output Sheets (see Attachment B).

**Table 5: Localized Construction Emission Estimates**

Construction Activity	Maximum Daily Regional Emissions (pounds/day)			
	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>2025</b>				
Demolition	4.0	4.9	8.3	1.4
Site Prep	37.5	32.4	7.6	4.5
Grading	20.6	19.6	3.4	2.0
Building Construction	11.3	14.1	0.5	0.4
Maximum Daily Emissions	37.5	32.4	8.3	4.5
<b>2026</b>				
Building Construction	10.7	14.1	0.4	0.4
Paving	7.1	9.9	0.3	0.3
Architectural Coating	1.1	1.5	0.0	0.0
Maximum Daily Emissions	10.7	14.1	0.4	0.4
<b>Maximum Daily Emission 2025-2026</b>	37.5	32.4	8.3	4.5
SCAQMD Significance Thresholds	164	1,381.5	11.5	6.5
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Notes: NO<sub>x</sub> = nitrogen oxides, CO = carbon monoxide, PM<sub>10</sub> = particulate matter 10 microns in diameter, PM<sub>2.5</sub> = particulate matter 2.5 microns in diameter

Source: CalEEMod Output Sheets (see Attachment B).

The localized significance thresholds for operation are determined by the size of the Project site and the distance to the nearest sensitive receptor as well as the maximum trip length possible within the Project site. As the Project's site is 8.20 acres, the threshold for 5 acres was utilized to yield a conservative analysis. As shown in Table 6, the proposed Project would generate emissions below the SCAQMD thresholds and would therefore have a less-than-significant localized operational air quality impact.

**Table 6: Localized Operational Emission Estimates**

Operational Activity	Maximum Daily Regional Emissions (pounds/day)			
	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Mobile	1.1	3.0	0.1	0.0
Area	0.1	6.3	0.0	0.0
Energy	1.0	0.9	0.1	0.1
<b>Total</b>	2.1	9.8	0.2	0.1
SCAQMD Significance Thresholds	197	1,796	4	2
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Source: CalEEMod Output Sheets (see Attachment B).

### Air Quality Management Plan Consistency

SCAQMD's CEQA Handbook provides the following two criteria to determine whether a project would be consistent or in conflict with the AQMP:

1. The Project would not generate population and employment growth that would be inconsistent with Southern California Association of Governments (SCAG)'s growth forecasts.
2. The Project would not result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations or delay the timely attainment of air quality standards or the interim emissions reductions specified in the AQMP.

Consistency Criterion No. 1 refers to the SCAG's growth forecasts, and associated assumptions included in the AQMP. The future air quality levels projected in the AQMP are based on SCAG's growth projections, which are based, in part, on the general plans of cities located within the SCAG region. Therefore, if the level of housing and employment growth related to the proposed Project is consistent with the applicable assumptions used in the development of the AQMP, the Project would not jeopardize attainment of the air quality levels identified in the AQMP.

The Project site has a General Plan land use designation of Business Park (I-BP) and is zoned as Heavy Manufacturing (M2). It is anticipated that the employment base for both the construction and operational phases of the proposed Project would come from the existing population in the region. Thus, the proposed Project would not induce population growth or growth in the area. Therefore, implementation of the Project would not exceed the growth assumptions for the Project site. As a result, the proposed Project would be consistent with Criterion 1.

Consistency Criterion No. 2 refers to the California Ambient Air Quality Standards. An impact would occur if the long-term emissions associated with the proposed Project would exceed SCAQMD's regional significance thresholds for operation-phase emissions. As presented in Table 3, operation of the proposed Project would result in emissions that do not exceed any SCAQMD thresholds. Therefore, the proposed Project would be consistent with Criterion No. 2.



As the Project would be consistent with both Criterion No. 1 and 2, impacts related to consistency with the AQMP would be less than significant.

### Odors

Odors would be produced during the construction of the proposed Project due to the operation of heavy-duty off-road equipment. The primary odor emitted would be diesel particulate matter (DPM) from the vendor trucks and heavy-duty off-road equipment. This odor may be noticeable by nearby residents; however, these odors would be expected and not necessarily objectionable. These odors would also dissipate quickly and would be temporary. Therefore, due to the nature of the odor produced during construction as temporary and non-objectionable to a substantial number of people, the odor impact from construction of the proposed Project would be less than significant.

For operational odor emissions, SCAQMD's *CEQA Air Quality Handbook* describes odor complaints associated with the following land uses:

- Agricultural uses
- Chemical plants
- Composting activities
- Dairies
- Fiberglass molding
- Food processing plants
- Landfills
- Refineries
- Wastewater treatment plants

The Project does not propose any of the above land uses and is required to comply with SCAQMD Rule 402, *Nuisance*, which states:

*A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.*

Thus, impacts associated with odor produced by operation of the proposed Project would be less than significant.

### Conclusion

The proposed Project's maximum daily regional and localized construction and operational emissions would not exceed SCAQMD's regional thresholds of significance, as detailed in Tables 2 through 6. All construction and operational activities will comply with applicable SCAQMD rules and regulations and not exceed any criteria pollutant thresholds. Additionally, the proposed Project is consistent with SCAQMD'S 2022 AQMP, reflecting adherence to regional air quality management goals and standards. Finally, odors produced during construction would be temporary and not significantly objectionable, and during operation, the proposed Project involves land uses that typically do not generate significant odor complaints and would comply with SCAQMD Rule 402. Therefore, the proposed Project would result in less-than-significant air quality impacts without requiring mitigation.

## ENERGY

The State CEQA Guidelines do not have specific thresholds for energy consumption. Rather, the question in Appendix G: VI Energy (a) asks, “[Would the proposed Project] Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?” and in (b) asks “[Would the project] Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?”<sup>7</sup> Therefore, for the purpose of this analysis, a significant impact would occur if:

- (a) The project design and/or location encourages wasteful, inefficient, and unnecessary consumption of energy, especially fossil fuels such as coal, natural gas, and petroleum, as well as the use of fuel by vehicles anticipated to travel to and from the project.
- (b) The project design impedes the growth of future renewable energy developments.

Southern California Edison and Southern California Gas Company would provide electricity and natural gas respectively for construction and operation of the proposed Project. The following assumptions were used to calculate the energy (electricity, natural gas, and petroleum) consumption of the proposed Project:

- Construction equipment fuel consumption was derived from CARB OffRoad2021 emission model
- Fuel Consumption from vehicle travel was derived from CARB EMFAC2021 emission model
- Electrical and natural gas usage was derived from the CalEEMod model Version 2022.1

### Construction

#### *Electricity and Natural Gas Usage:*

Due to the Project size and the fact that construction is temporary, the electricity used during construction of the proposed Project would be substantially less than that required for Project operation and would have a negligible contribution to the Project’s overall energy consumption. The electric power used would be for as-necessary lighting and electronic equipment such as computers inside temporary construction trailers. Natural gas is not anticipated to be needed for construction activities. Any consumption of natural gas would be minor and negligible in comparison to the usage during the operation of the proposed Project.

#### *Petroleum Fuel Usage:*

The equipment associated with construction activities (off-road/heavy duty vehicles) would rely on diesel fuel as would vendor and haul trucks involved in delivering building materials and removing the demolition debris from the Project site. Construction workers would travel to and from the Project site throughout the duration of construction, and for a conservative analysis, it is assumed that construction workers would travel in gasoline-powered passenger vehicles. Table 7 lists the total fuel consumption and horsepower-hour data contained within the CARB OffRoad2021 emission model for specific types of diesel construction equipment. It should be noted that the total fuel consumption is a conservative analysis and would likely overstate the amount of fuel usage, as specific construction equipment is not expected to operate during the entire duration of the construction activity (i.e., crane). Table 8 summarizes the Project’s construction vehicle fuel usage based on vehicle miles traveled and fuel usage factors contained in the CARB EMFAC2021. The trips included are worker vehicles, vendor vehicles, and haul vehicles. Table 9 shows the overall fuel consumption for Project construction.

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<sup>7</sup> California Energy Commission 2023. CEQA Statutes and Guidelines Attachment 10 Appendix G: Environmental Checklist Form. Referenced at: [https://www.energy.ca.gov/sites/default/files/2024-01/11\\_Attachment\\_10\\_-\\_Appendix\\_G\\_from\\_CEQA\\_Handbook\\_ada.docx](https://www.energy.ca.gov/sites/default/files/2024-01/11_Attachment_10_-_Appendix_G_from_CEQA_Handbook_ada.docx)

**Table 7: Construction Equipment Fuel Usage**

Activity	Equipment	Number	Hours per day	Horse-power	Load Factor	Days of Construction	Total Horsepower-hours	Fuel Rate (gal/hp-hr)	Fuel Use (gallons)
Demolition	Concrete/Industrial Saws	1	8	33	0.73	35	6,745	0.04200992	283
	Excavators	3	8	36	0.38	35	11,491	0.05121509	589
	Rubber Tired Dozers	2	8	367	0.4	35	82,208	0.04745478	3,901
Site Preparation	Rubber Tired Dozers	3	8	367	0.4	10	35,232	0.047454783	1,672
	Crawler Tractors	4	8	84	0.37	10	9,946	0.05048826	502
Grading	Excavators	1	8	36	0.38	20	10,944	0.05121509	112
	Graders	1	8	148	0.41	20	48,544	0.05153929	500
	Rubber Tired Dozers	1	8	367	0.4	20	117,440	0.04745478	2,115
	Crawler Tractors	3	8	87	0.43	20	89,784	0.07797542	1,400
	Tractors/Loaders/Backhoes	0	8	84	0.37	20	0	0.053120784	0
Building	Cranes	1	8	367	0.29	230	187,317	0.05312078	10,403
	Forklifts	3	8	82	0.2	230	86,592	0.03171682	2,871
	Generator Sets	1	8	14	0.74	230	18,234	0.07797542	1,486
	Tractors/Loaders/Backhoes	3	8	84	0.37	230	164,102	0.05151654	8,838
	Welders	1	8	46	0.45	230	36,432	0.05116533	1,949
Paving	Pavers	2	8	81	0.42	20	10,886	0.05259167	573
	Paving Equipment	2	8	89	0.36	20	10,253	0.05312078	545
	Rollers	2	8	36	0.38	20	4,378	0.030007254	131
Architectural Coating	Air Compressors	1	8	37	0.48	20	4262	0.030007254	85
<b>Total</b>									<b>36,955</b>

Source: Fuel Calculation Sheets (see Attachment C)

**Table 8: Estimated Project Vehicle Fuel Usage**

Construction Source	Total Number of Trips	VMT	Fuel Rate	Gallons of Diesel Fuel	Gallons of Gasoline Fuel
Haul Trucks	900	36,007	6.21	5,800	0
Vendor Trucks	5,520	85,560	8.98	9,527	0
Worker Vehicles	15,575	392,490	28.86	0	13,602
<b>Total</b>				<b>15,328</b>	<b>13,602</b>

Source: Fuel Calculation Sheets (see Attachment C).

**Table 9: Total Construction Fuel Usage**

Construction Source	Gallons of Diesel Fuel	Gallons of Gasoline Fuel
Construction Vehicles	15,328	13,602
Off-Road Construction Equipment	36,955	0
<b>Total</b>	<b>52,283</b>	<b>13,602</b>

Source: Fuel Calculation Sheets (see Attachment C).

**Operation**

The operation of the proposed Project would consume electricity, natural gas, and petroleum. The net energy consumption can be found in Table 10, *Project Annual Operational Energy Requirements*, below. Electricity and natural gas consumption can be found in the CalEEMod Output Sheets attached (Attachment B). The gasoline consumption rates utilize the same assumptions that were used for the worker vehicles. As shown in Table 10, while the proposed Project is expected to require less electricity and gasoline fuel than the existing use on-site, it is expected to require more natural gas and diesel fuel than the existing use on-site. However, it would remain consistent with that of similar sized projects and would thus not constitute an inefficient use of energy. Therefore, the proposed Project would result in less-than-significant energy impacts without requiring mitigation.

**Table 10: Project Annual Operational Energy Requirements**

Electricity (Kilowatt-Hours)		
Proposed Project	971,975	
Existing Use	1,406,446	
Natural Gas (Thousands British Thermal Units)		
Proposed Project	3,790,317	
Existing Use	1,756,206	
Petroleum (Gasoline) Consumption		
	Annual VMT	Gallons of Gasoline Fuel
Proposed Project	1,018,773	35,306
Existing Use	2,239,232	83,667
Petroleum (Diesel) Consumption		
	Annual VMT	Gallons of Diesel Fuel
Proposed Project	891,896	118,051
Existing Use	0	0
Net Total Energy Use		
Net Electricity (Kilowatt-Hours)		-434,470
Net Natural Gas (Thousands British thermal Units)		2,034,111
Net Gasoline Consumption (Gallons)		-48,361
Net Diesel Consumption (Gallons)		118,051

Source: CalEEMod Output Sheets (see Attachment B).

**Future Renewable Energy Developments**

The proposed Project would be required to meet the CCR Title 24 energy efficiency standards in effect during permitting of proposed Project and comply with all applicable City energy codes. The City's administration of the CCR Title 24 requirements includes review of design components and energy conservation measures that occurs during the permitting process, which ensures that all requirements are met. In addition, Project design and operation would comply with State Building Energy Efficiency Standards, appliance efficiency regulations, and green building standards. The Project buildings would be solar ready in compliance with current Title 24 requirements, which would allow for the future installation of rooftop solar. As such, the Project would not inhibit the use of and would allow for future flexibility relating to renewable energy.

**Conclusion**

The Project would comply with the State CEQA Guidelines for energy consumption thresholds (a), concerning wasteful, inefficient and overconsumption of energy in projects, and (b), project design impeding renewable energy development growth, respectively:

- (a) Construction activities related to the proposed Project and the associated infrastructure are not expected to result in demand for fuel greater on a per-unit-of-development basis than any other development projects in Southern California. Also, CCR Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment.

- (b) The proposed Project would be required to meet the CCR Title 24 energy efficiency standards, comply with all applicable City energy codes and the Project buildings would be solar ready in compliance with current Title 24 requirements. Therefore, the Project would not inhibit the use of and would allow for future flexibility relating to renewable energy.

The operation of the Project would also be similar to other industrial projects within the city and would comply with Title 24 as well as all applicable City business and energy codes and ordinances. The proposed Project would consume less electricity and gasoline fuel than the five office buildings currently occupying the site but would consume more natural gas and diesel than the site's existing use. The Project's energy consumption for construction activities related to redevelopment of the site for new industrial warehousing uses would be permitted to require compliance with existing fuel standards, machinery efficiency standards, and CARB requirements that limit idling of trucks. Through compliance with existing standards, the Project would not result in a fuel demand on a per-development basis that is greater than other development projects in Southern California. There are no unusual Project characteristics that would cause the use of construction equipment that would be less energy efficient compared with other similar construction sites in other parts of the state. Therefore, the construction and operation of the Project would result in a less-than-significant impact related to inefficient, wasteful, or unnecessary energy use, and no mitigation would be required.

## GREENHOUSE GAS EMISSIONS

### Regulatory Background and Thresholds

California State Executive Order S-3-05, issued by Governor Arnold Schwarzenegger in June 2005, established comprehensive GHG reduction targets for the state.<sup>8</sup> It mandated reducing GHG emissions to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. This Executive Order laid the foundation for subsequent climate change mitigation efforts in California, including the development of various policies and programs aimed at reducing emissions across sectors such as transportation, energy, and industry. The objective of the Executive Order is to contribute to capping worldwide CO<sub>2</sub> concentrations at 450 ppm, stabilizing global climate change.

SCAQMD convened a GHG Emissions CEQA Significance Threshold Working Group to help lead agencies determine significance thresholds for GHG emissions when SCAQMD is not the lead agency. The last working group was held in September 2010 (Meeting No. 15) and proposed a tiered approach (Tier 1 to Tier 5), equivalent to the existing consistency determination requirements in CEQA Guidelines Sections 15064(h)(3), 15125(d), or 15152(a).<sup>9</sup> This assessment will apply the Tier 3 (Numerical Screening Thresholds) approach. Tier 3 consists of screening values which the lead agency can choose from, but it must be consistent with all projects within its jurisdiction. A project's construction emissions are averaged over 30 years and are added to the project's operational emissions. If a project's emissions are below one of the following screening thresholds, then the project impact would be less than significant:

- Option 1, all land use types: 3,000 MTCO<sub>2</sub>e per year
- Option 2, based on land use type:
  - Residential: 3,500 MTCO<sub>2</sub>e per year
  - Commercial: 1,400 MTCO<sub>2</sub>e per year
  - Mixed-use: 3,000 MTCO<sub>2</sub>e per year

The City of Torrance has utilized Option 1 for other projects within the city; therefore, the Option 1 threshold of 3,000 MT CO<sub>2</sub>e per year is used in this analysis

### Project GHG Emissions

The Project's construction GHG emissions are shown in Table 11, *Project Construction GHG Emissions*, and the overall construction and operational emissions are shown in Table 12, *Project Total GHG Emissions*, below. These emissions were calculated using the CalEEMod model. The construction emissions are amortized over 30 years and added to the operational GHG emissions<sup>10</sup> As shown in Table 12, the Project's construction and operation GHG emissions would total 2,030 MTCO<sub>2</sub>e per year, resulting in a net increase of 877 MTCO<sub>2</sub>e per year when taking into consideration the existing office buildings. The Projects net and total GHG emission results are below the SCAQMD significance threshold of 3,000 MTCO<sub>2</sub>e per year. Therefore, the Project would have a less-than-significant impact on GHG emissions.

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<sup>8</sup> Executive Department State of California Executive Order S-3-05 <https://www.library.ca.gov/wp-content/uploads/GovernmentPublications/executive-order-proclamation/5129-5130.pdf>

<sup>9</sup> SCAQMD. (2010). *Minutes of the GHG CEQA Significance Threshold Stakeholder Working Group #15*. [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf).

<sup>10</sup> SCAQMD. (2008). *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans*. [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/ghgboardsynopsis.pdf](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf).

**Table 11: Project Construction GHG Emissions**

Activity	Annual GHG Emissions (MTCO <sub>2e</sub> )
2025	273
2026	371
Total Emissions	645
Total Emissions Amortized Over 30 Years	21

Source: CalEEMod Output Sheets (see Attachment B).

**Table 12: Project Total GHG Emissions**

Activity	Annual GHG Emissions (MTCO <sub>2e</sub> )
Mobile	1,521
Area	3
Energy	355
Water	82
Waste	46
Refrigerant	2
<b>Total Project Gross Operation Emissions</b>	<b>2,009</b>
Project Construction Emissions	21
<b>Total Project Emissions</b>	<b>2,030</b>
Existing Emissions	1,153
<b>Net New Emissions</b>	<b>877</b>
Significance Threshold	3,000
<b>Threshold Exceeded?</b>	<b>No</b>

Source: CalEEMod Output Sheets (see Attachment B).

**Project Consistency with the City of Torrance General Plan and 2022 CARB Scoping Plan**

The City of Torrance has not adopted a Climate Action Plan; thus, Table 13 provides a consistency summary that outlines the City of Torrance General Plan (adopted in 2010) policies related to reducing GHG emissions, Policy CR.14.1 and Policy CR.14.2. As shown in Table 13, the Project would comply with applicable plans and programs of the Torrance General Plan intended to reduce GHG emissions. The 2022 CARB Scoping Plan Update sets the GHG emission reduction target for 2045 at 85% below 1990 levels, which was codified by SB 32. Table 21 shows consistency with CARB's 2022 Scoping Plan. As seen in Table 14, the Project would be consistent with the 2022 Scoping Plan. The proposed Project would not conflict with any plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs within the City of Torrance and the 2022 CARB Scoping Plan.



**Table 13: City of Torrance General Plan Consistency Summary**

Action	Consistency
<b>Community Resources Element</b>	
Policy CR.14.1: Support the California Air Resources Board in its ongoing plans to implement AB32, and fully follow any new AB32-related regulations.	<b>Not Applicable, Not Project Specific.</b> The proposed Project would not interfere with this policy.
Policy CR.14.2: Develop and implement GHG emissions reduction measures, including discrete, early action greenhouse gas reducing measures that are technologically feasible and cost-effective.	<b>Not Applicable, Not Project Specific.</b> The proposed Project would not interfere with this policy.
Policy CR 14.3: Pursue actions recommended in the U.S. Mayors Climate Protection Agreement to meet AB32 requirements.	<b>Not Applicable, Not Project Specific.</b> The proposed Project would not interfere with this policy.
Policy CR 14.4: Act as a leader and example in sustainability and reduction in greenhouse gas emissions by conducting City business in the most greenhouse gas-sensitive way.	<b>Not Applicable, Not Project Specific.</b> The proposed Project would not interfere with this policy.

Source: City of Torrance. (2009). Torrance General Plan Draft Environmental Impact Report. Chapter 3 Community Resources Element, Page 45.

**Table 14: 2022 Scoping Plan Consistency Summary**

Action	Consistency
<b>GHG Emissions Reductions Relative to the SB 32 Target</b>	
40% Below 1990 levels by 2030.	<b>Consistent.</b> The Project would comply with the 2022 Title 24, Part 6 building energy requirements along with other local and State initiatives that aim to achieve the 40% below 1990 levels by 2030 goal.
<b>Smart Growth/Vehicle Miles Traveled VMT</b>	
VMT per capita reduced 25% below 2019 levels by 2030, and 30% below 2019 levels by 2045.	<b>Consistent.</b> The proposed Project would provide bicycle racks and bicycle parking spaces to encourage alternative modes of transportation. The Project would also reduce passenger vehicle trips compared to the site's existing use. The Project is consistent with the growth and land use assumptions in the 2022 Connect SoCal (SCAG, 2020), so the Project would not interfere with the analysis completed for the Connect SoCal report outlining VMT reduction targets and measures.
<b>Light-Duty Vehicle (LDV) Zero-Emission Vehicles (ZEVs)</b>	
100% of LDV sales are ZEV by 2035.	<b>Not Applicable.</b> The proposed Project does not propose the sale of vehicles.
<b>Truck ZEVs</b>	

Action	Consistency
100% of medium-duty (MDV)/HDC sales are ZEV by 2040 (AB 74 University of California Institute of Transportation Studies [ITS] report).	<b>Not Applicable.</b> The proposed Project does not propose the sale of trucks.
<b>Aviation</b>	
20% of aviation fuel demand is met by electricity (batteries) or hydrogen (fuel cells) in 2045. Sustainable aviation fuel meets most or the rest of the aviation fuel demand that has not already transitioned to hydrogen or batteries.	<b>Not Applicable.</b> The proposed Project would not utilize aviation fuel.
<b>Ocean-Going Vessels (OGV)</b>	
2020 OGV At-Berth regulation fully implemented, with most OGVs utilizing shore power by 2027. 25% of OGVs utilize hydrogen fuel cell electric technology by 2045.	<b>Not Applicable.</b> The proposed Project would not utilize any OGVs.
<b>Port Operations</b>	
100% of cargo handling equipment is zero-emission by 2037. 100% of drayage trucks are zero emission by 2035.	<b>Not Applicable.</b> The proposed Project would not impact any operations at any ports.
<b>Freight and Passenger Rail</b>	
100% of passenger and other locomotive sales are ZEV by 2030. 100% of line haul locomotive sales are ZEV by 2035. Line haul and passenger rail rely primarily on hydrogen fuel cell technology, and others primarily utilize electricity.	<b>Not Applicable.</b> The proposed Project would not involve any freight or passenger rail operations.
<b>Oil and Gas Extraction</b>	
Reduce oil and gas extraction operations in line with petroleum demand by 2045.	<b>Not Applicable.</b> The proposed Project would not involve oil and gas extraction operations.
<b>Petroleum Refining</b>	
CCS on majority of operations by 2030, beginning in 2028. Production reduced in line with petroleum demand.	<b>Not Applicable.</b> The proposed Project would not involve any petroleum refining.
<b>Electricity Generation</b>	
Sector GHG target of 38 million metric tons of carbon dioxide equivalent (MMTCO <sub>2</sub> e) in 2030 and 30 MMTCO <sub>2</sub> e in 2035. Retail sales load coverage 13420 gigawatts (GW) of offshore wind by 2045. Meet increased demand for electrification without new fossil gas-fired resources.	<b>Not Applicable.</b> The Project would not generate electricity.
<b>New Residential and Commercial Buildings</b>	

Action	Consistency
All electric appliances beginning 2026 (residential) and 2029 (commercial), contributing to 6 million heat pumps installed statewide by 2030.	<b>Not Applicable.</b> The Project proposes an industrial use and does not include any residential or commercial uses..
<b>Existing Residential Buildings</b>	
80% of appliance sales are electric by 2030 and 100% of appliance sales are electric by 2035.  Appliances are replaced at end of life such that by 2030 there are 3 million all-electric and electric-ready homes—and by 2035, 7 million homes—as well as contributing to 6 million heat pumps installed statewide by 2030.	<b>Not Applicable.</b> The proposed Project would not involve any existing residential buildings.
<b>Existing Commercial Buildings</b>	
80% of appliance sales are electric by 2030, and 100% of appliance sales are electric by 2045.  Appliances are replaced at end of life, contributing to 6 million heat pumps installed statewide by 2030.	<b>Not Applicable.</b> The five existing office buildings on-site would be demolished for the development of two new industrial buildings.
<b>Food Products</b>	
7.5% of energy demand electrified directly and/or indirectly by 2030; 75% by 2045.	<b>Not Applicable.</b> The Project does not propose cold storage and would not involve mass food production.
<b>Construction Equipment</b>	
25% of energy demand electrified by 2030 and 75% electrified by 2045.	<b>Consistent.</b> The proposed Project would be required to use construction equipment that is registered by CARB and meet CARB's standards. CARB sets its standards to be in line with the goal of reducing energy demand by 25% in 2030 and 75% in 2045.
<b>Chemicals and Allied Products; Pulp and Paper</b>	
Electrify 0% of boilers by 2030 and 100% of boilers by 2045.  Hydrogen for 25% of process heat by 2035 and 100% by 2045.  Electrify 100% of other energy demand by 2045.	<b>Consistent.</b> As the Project proposes speculative industrial buildings, there is a potential for the Project to involve the production and/or storage of chemicals and allied products like pulp and paper. The Project would comply with the energy demands of the 2022 Title 24 Section 6 Building Codes and would comply with the electricity and hydrogen requirement by 2045 for the production of chemicals and allied products.
<b>Stone, Clay, Glass, and Cement</b>	
CCS on 40% of operations by 2035 and on all facilities by 2045.  Process emissions reduced through alternative materials and CCS.	<b>Consistent.</b> As the Project proposes speculative industrial buildings, there is a potential for the Project to involve the production and/or storage of stone, clay, glass and/or cement. The Project would comply with the energy demands of the 2022 Title 24 Section 6 Building Codes and would promote the implementation and use of CCS for operations by 2035 and on all operations and facilities by 2045. .
<b>Other Industrial Manufacturing</b>	

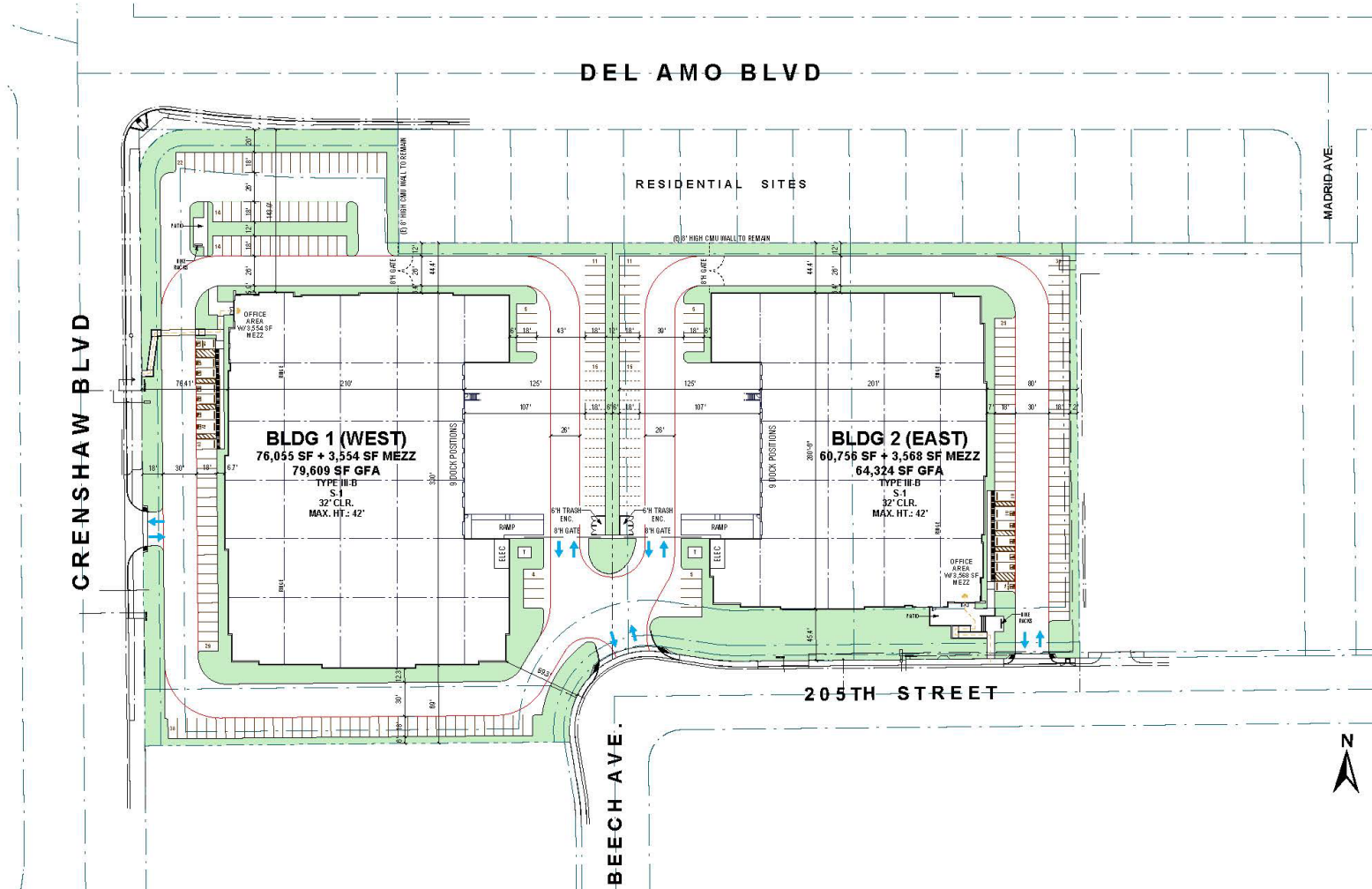
Action	Consistency
0% energy demand electrified by 2030 and 50% by 2045.	<b>Consistent.</b> The proposed Project would comply with Title 24, Part 6 Building energy requirements, including increases in onsite energy generation requirements and improved insulation reducing energy consumption in industrial manufacturing operations.
<b>Combined Heat and Power</b>	
Facilities retire by 2040.	<b>Not Applicable.</b> The proposed Project would not involve any existing combined heat and power facilities.
<b>Agriculture Energy Use</b>	
25% energy demand electrified by 2030 and 75% by 2045.	<b>Not Applicable.</b> The proposed Project would not involve any agricultural uses.
<b>Low Carbon Fuels for Transportation</b>	
Biomass supply is used to produce conventional and advanced biofuels, as well as hydrogen.	<b>Not Applicable.</b> The proposed Project would not involve any production of biofuels.
<b>Low Carbon Fuels for Buildings and Industry</b>	
In 2030s, biomethane135 blended in pipeline Renewable hydrogen blended in fossil gas pipeline at 7% energy (~20% by volume), ramping up between 2030 and 2040. In 2030s, dedicated hydrogen pipelines constructed to serve certain industrial clusters	<b>Not Applicable.</b> The proposed Project would not involve any production of fuels for buildings and industry.
<b>Non-Combustion Methane Emissions</b>	
Increase landfill and dairy digester methane capture. Some alternative manure management deployed for smaller dairies. Moderate adoption of enteric strategies by 2030. Divert 75% of organic waste from landfills by 2025. Oil and gas fugitive methane emissions reduced 50% by 2030 and further reductions as infrastructure components retire in line with reduced fossil gas demand	<b>Not Applicable.</b> The proposed Project would not involve any production of non-combustion methane emissions or organic waste.
<b>High GWP Potential Emissions</b>	
Low GWP refrigerants introduced as building electrification increases, mitigating HFC emissions.	<b>Consistent.</b> The proposed Project includes refrigeration and would be consistent with the 2022 Title 24 Section 6 Building Codes for 2022 and would be required to meet increasing standards set by the State. Therefore, the Project would be consistent with meeting current and future policies concerning the use of low GWP refrigerants.

Source: California's 2022 Climate Change Scoping Plan Table 2-1: Actions for the Scoping Plan Scenario: AB 32 GHG Inventory Sectors

**Conclusion**

The Project is consistent with the actions and measures of the City's General Plan 2022 Scoping Plan and would not interfere with the policies and goals set within those plans. The proposed Project's GHG emissions of 2,030 MTCO<sub>2e</sub> per year and a net increase in emissions of 877 MTCO<sub>2e</sub> per year are both below the SCAQMD significance threshold of 3,000 MTCO<sub>2e</sub> per year. Therefore, the Project would have a less-than-significant impact related to GHG emissions.

Figure 1: Project Site Plan



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*ATTACHMENT A: DEMO CALCULATIONS*

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# 205th Street Torrance

## Estimates of Demolition Debris

### Building Demolition

Building	Height(ft)	Area (ft2)	Volume (ft3)	Demo Building Volume (cy)
All	25	69288	1732200	21171
Total		69288	1732200	21171
Weight of the Building Demolition Debris (ton/cy):				0.5
Total Weight of Building Debris				10586 tons

Note 1: Total square footage of existing school buildings contained in the project description  
Note 2: FEMA Debris Estimating Field Guide, FEMA 329. September 2010  
Note 3: CalEEMod User Guide

### Hardscape Demolition

Weight of Hardscape		145 lb/ft3			
Area	Height (ft)	Area (ft2)	Volume (cf)	Weight (lbs)	Weight (tons)
1	0.5	264216.6	132108	19155704	9578
2	0	0	0	0	0
3	0	0	0	0	0
Total		264216.6	132108	19155704	9578 tons

Total Demolition Weight 20164 tons



40327.04



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**ATTACHMENT B: CALEEMOD OUTPUT SHEETS**

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# 24-007 W 205 Torrance Detailed Report

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# 1. Basic Project Information

## 1.1. Basic Project Information

Data Field	Value
Project Name	24-007 W 205 Torrance
Construction Start Date	9/1/2025
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.50
Precipitation (days)	17.4
Location	33.84605242481844, -118.32747505248464
County	Los Angeles-South Coast
City	Torrance
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4669
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.28

## 1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	101	1000sqft	2.31	100,753	61,500	—	—	—



Manufacturing	43.2	1000sqft	0.99	43,180	0.00	—	—	—
Parking Lot	251	Space	2.26	0.00	0.00	—	—	—
Other Asphalt Surfaces	2.65	Acre	2.65	0.00	0.00	—	—	—
User Defined Industrial	144	User Defined Unit	0.00	0.00	0.00	—	—	—

### 1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

## 2. Emissions Summary

### 2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unmit.	1.38	16.3	17.2	0.07	11.3	2.25	11,304
Daily, Winter (Max)	—	—	—	—	—	—	—
Unmit.	69.9	37.5	33.2	0.07	11.3	4.50	11,278
Average Daily (Max)	—	—	—	—	—	—	—
Unmit.	4.69	7.01	10.3	0.02	1.56	0.49	2,243
Annual (Max)	—	—	—	—	—	—	—
Unmit.	0.86	1.28	1.88	< 0.005	0.28	0.09	371
Exceeds (Daily Max)	—	—	—	—	—	—	—
Threshold	75.0	55.0	100	150	150	55.0	—
Unmit.	No	No	No	No	No	No	—
Exceeds (Average Daily)	—	—	—	—	—	—	—
Threshold	75.0	55.0	100	150	150	55.0	—
Unmit.	No	No	No	No	No	No	—

## 2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—
2025	0.69	16.3	10.4	0.07	11.3	2.25	11,304
2026	1.38	11.5	17.2	0.03	1.11	0.55	3,801
Daily - Winter (Max)	—	—	—	—	—	—	—
2025	4.12	37.5	33.2	0.07	11.3	4.50	11,278
2026	69.9	11.6	16.9	0.03	1.11	0.55	3,769
Average Daily	—	—	—	—	—	—	—
2025	0.40	4.53	4.06	0.01	1.56	0.49	1,650
2026	4.69	7.01	10.3	0.02	0.66	0.33	2,243
Annual	—	—	—	—	—	—	—
2025	0.07	0.83	0.74	< 0.005	0.28	0.09	273
2026	0.86	1.28	1.88	< 0.005	0.12	0.06	371

## 2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unmit.	5.67	8.61	19.4	0.09	4.31	1.26	12,226
Daily, Winter (Max)	—	—	—	—	—	—	—
Unmit.	4.63	8.90	12.3	0.09	4.30	1.25	12,080
Average Daily (Max)	—	—	—	—	—	—	—
Unmit.	5.33	9.04	16.8	0.09	4.26	1.25	12,134
Annual (Max)	—	—	—	—	—	—	—
Unmit.	0.97	1.65	3.07	0.02	0.78	0.23	2,009

Exceeds (Daily Max)	—	—	—	—	—	—	—
Threshold	55.0	55.0	550	150	150	55.0	—
Unmit.	No	No	No	No	No	No	—
Exceeds (Average Daily)	—	—	—	—	—	—	—
Threshold	55.0	55.0	550	150	150	55.0	—
Unmit.	No	No	No	No	No	No	—
Exceeds (Annual)	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	3,000
Unmit.	—	—	—	—	—	—	No

## 2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Mobile	1.11	7.54	12.2	0.08	4.22	1.17	9,270
Area	4.51	0.05	6.26	< 0.005	0.01	0.01	25.8
Energy	0.06	1.02	0.86	0.01	0.08	0.08	2,145
Water	—	—	—	—	—	—	494
Waste	—	—	—	—	—	—	280
Refrig.	—	—	—	—	—	—	11.2
Total	5.67	8.61	19.4	0.09	4.31	1.26	12,226
Daily, Winter (Max)	—	—	—	—	—	—	—
Mobile	1.10	7.88	11.5	0.08	4.22	1.17	9,150
Area	3.48	—	—	—	—	—	—
Energy	0.06	1.02	0.86	0.01	0.08	0.08	2,145
Water	—	—	—	—	—	—	494
Waste	—	—	—	—	—	—	280

Refrig.	—	—	—	—	—	—	11.2
Total	4.63	8.90	12.3	0.09	4.30	1.25	12,080
Average Daily	—	—	—	—	—	—	—
Mobile	1.09	7.99	11.7	0.08	4.18	1.16	9,186
Area	4.18	0.04	4.29	< 0.005	0.01	0.01	17.7
Energy	0.06	1.02	0.86	0.01	0.08	0.08	2,145
Water	—	—	—	—	—	—	494
Waste	—	—	—	—	—	—	280
Refrig.	—	—	—	—	—	—	11.2
Total	5.33	9.04	16.8	0.09	4.26	1.25	12,134
Annual	—	—	—	—	—	—	—
Mobile	0.20	1.46	2.13	0.02	0.76	0.21	1,521
Area	0.76	0.01	0.78	< 0.005	< 0.005	< 0.005	2.93
Energy	0.01	0.19	0.16	< 0.005	0.01	0.01	355
Water	—	—	—	—	—	—	81.8
Waste	—	—	—	—	—	—	46.3
Refrig.	—	—	—	—	—	—	1.86
Total	0.97	1.65	3.07	0.02	0.78	0.23	2,009

### 3. Construction Emissions Details

#### 3.1. Demolition (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.48	4.04	4.90	0.01	0.12	0.11	672
Demolition	—	—	—	—	8.22	1.25	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.48	4.04	4.90	0.01	0.12	0.11	672
Demolition	—	—	—	—	8.22	1.25	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.39	0.47	< 0.005	0.01	0.01	64.4
Demolition	—	—	—	—	0.79	0.12	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.09	< 0.005	< 0.005	< 0.005	10.7
Demolition	—	—	—	—	0.14	0.02	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.06	0.05	0.75	0.00	0.13	0.03	145
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.16	12.2	4.76	0.07	2.80	0.86	10,481
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.06	0.05	0.65	0.00	0.13	0.03	137
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.15	12.7	4.81	0.07	2.80	0.86	10,462
Average Daily	—	—	—	—	—	—	—
Worker	0.01	0.01	0.06	0.00	0.01	< 0.005	13.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	1.23	0.46	0.01	0.27	0.08	1,004
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	2.20

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.23	0.08	< 0.005	0.05	0.01	166

### 3.3. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	4.05	37.5	32.4	0.05	1.93	1.78	5,547
Dust From Material Movement	—	—	—	—	5.66	2.69	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.11	1.03	0.89	< 0.005	0.05	0.05	152
Dust From Material Movement	—	—	—	—	0.16	0.07	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.19	0.16	< 0.005	0.01	0.01	25.2
Dust From Material Movement	—	—	—	—	0.03	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.07	0.06	0.76	0.00	0.16	0.04	160
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	< 0.005	< 0.005	4.44
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.73
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.5. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	2.30	20.6	19.6	0.03	1.15	1.05	3,145
Dust From Material Movement	—	—	—	—	2.26	0.94	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.13	1.07	< 0.005	0.06	0.06	172
Dust From Material Movement	—	—	—	—	0.12	0.05	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.21	0.20	< 0.005	0.01	0.01	28.5
Dust From Material Movement	—	—	—	—	0.02	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.06	0.05	0.65	0.00	0.13	0.03	137
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.01	< 0.005	7.61
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	1.26
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.7. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.21	11.3	14.1	0.03	0.47	0.43	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.69	0.86	< 0.005	0.03	0.03	160
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.13	0.16	< 0.005	0.01	< 0.005	26.5



Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.23	0.21	2.61	0.00	0.54	0.13	551
Vendor	0.02	0.73	0.36	< 0.005	0.16	0.05	600
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.01	0.01	0.17	0.00	0.03	0.01	34.0
Vendor	< 0.005	0.04	0.02	< 0.005	0.01	< 0.005	36.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.01	< 0.005	5.62
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	6.03
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.9. Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.16	10.7	14.1	0.03	0.41	0.38	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	1.16	10.7	14.1	0.03	0.41	0.38	2,639
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.65	6.04	7.96	0.01	0.23	0.21	1,492

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.12	1.10	1.45	< 0.005	0.04	0.04	247
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Worker	0.21	0.17	2.80	0.00	0.54	0.13	571
Vendor	0.02	0.67	0.34	< 0.005	0.16	0.05	591
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.21	0.19	2.44	0.00	0.54	0.13	540
Vendor	0.02	0.70	0.35	< 0.005	0.16	0.05	590
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	0.12	0.12	1.44	0.00	0.30	0.07	310
Vendor	0.01	0.40	0.20	< 0.005	0.09	0.03	334
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	0.02	0.02	0.26	0.00	0.06	0.01	51.4
Vendor	< 0.005	0.07	0.04	< 0.005	0.02	< 0.005	55.3
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.11. Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—

Off-Road Equipment	0.76	7.12	9.94	0.01	0.32	0.29	1,516
Paving	0.64	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.39	0.54	< 0.005	0.02	0.02	83.1
Paving	0.04	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.10	< 0.005	< 0.005	< 0.005	13.8
Paving	0.01	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.05	0.05	0.61	0.00	0.13	0.03	134
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.01	< 0.005	7.46
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	1.23
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00

### 3.13. Architectural Coating (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Off-Road Equipment	0.16	1.14	1.51	< 0.005	0.03	0.03	179
Architectural Coatings	69.7	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.06	0.08	< 0.005	< 0.005	< 0.005	9.79
Architectural Coatings	3.82	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005	1.62
Architectural Coatings	0.70	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Worker	0.04	0.04	0.49	0.00	0.11	0.03	108
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.01	< 0.005	6.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	1.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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## 4. Operations Emissions Details

### 4.1. Mobile Emissions by Land Use

#### 4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.35	0.19	3.37	0.01	0.73	0.19	749
Manufacturing	0.59	0.31	5.65	0.01	1.23	0.32	1,254
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	0.16	7.04	3.23	0.06	2.26	0.67	7,267
Total	1.11	7.54	12.2	0.08	4.22	1.17	9,270
Daily, Winter (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.35	0.21	3.07	0.01	0.73	0.19	710
Manufacturing	0.59	0.35	5.15	0.01	1.23	0.32	1,190
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	0.15	7.32	3.23	0.06	2.26	0.67	7,249
Total	1.10	7.88	11.5	0.08	4.22	1.17	9,150
Annual	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	0.06	0.04	0.58	< 0.005	0.13	0.03	119
Manufacturing	0.11	0.06	0.97	< 0.005	0.22	0.06	200
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	0.03	1.35	0.59	0.01	0.41	0.12	1,201
Total	0.20	1.46	2.13	0.02	0.76	0.21	1,521

## 4.2. Energy

### 4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	450
Manufacturing	—	—	—	—	—	—	395
Parking Lot	—	—	—	—	—	—	82.2
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
User Defined Industrial	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	927
Daily, Winter (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	450
Manufacturing	—	—	—	—	—	—	395
Parking Lot	—	—	—	—	—	—	82.2

Other Asphalt Surfaces	—	—	—	—	—	—	0.00
User Defined Industrial	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	927
Annual	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	74.5
Manufacturing	—	—	—	—	—	—	65.4
Parking Lot	—	—	—	—	—	—	13.6
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
User Defined Industrial	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	154

#### 4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.03	0.52	0.44	< 0.005	0.04	0.04	624
Manufacturing	0.03	0.50	0.42	< 0.005	0.04	0.04	594
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.06	1.02	0.86	0.01	0.08	0.08	1,218
Daily, Winter (Max)	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	0.03	0.52	0.44	< 0.005	0.04	0.04	624
Manufacturing	0.03	0.50	0.42	< 0.005	0.04	0.04	594
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.06	1.02	0.86	0.01	0.08	0.08	1,218
Annual	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.01	0.10	0.08	< 0.005	0.01	0.01	103
Manufacturing	< 0.005	0.09	0.08	< 0.005	0.01	0.01	98.3
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.01	0.19	0.16	< 0.005	0.01	0.01	202

## 4.3. Area Emissions by Source

### 4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Consumer Products	3.10	—	—	—	—	—	—
Architectural Coatings	0.38	—	—	—	—	—	—
Landscape Equipment	1.03	0.05	6.26	< 0.005	0.01	0.01	25.8
Total	4.51	0.05	6.26	< 0.005	0.01	0.01	25.8
Daily, Winter (Max)	—	—	—	—	—	—	—



Consumer Products	3.10	—	—	—	—	—	—
Architectural Coatings	0.38	—	—	—	—	—	—
Total	3.48	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Consumer Products	0.57	—	—	—	—	—	—
Architectural Coatings	0.07	—	—	—	—	—	—
Landscape Equipment	0.13	0.01	0.78	< 0.005	< 0.005	< 0.005	2.93
Total	0.76	0.01	0.78	< 0.005	< 0.005	< 0.005	2.93

## 4.4. Water Emissions by Land Use

### 4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	347
Manufacturing	—	—	—	—	—	—	147
Parking Lot	—	—	—	—	—	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
User Defined Industrial	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	494
Daily, Winter (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	347
Manufacturing	—	—	—	—	—	—	147
Parking Lot	—	—	—	—	—	—	0.00

Other Asphalt Surfaces	—	—	—	—	—	—	0.00
User Defined Industrial	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	494
Annual	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	57.5
Manufacturing	—	—	—	—	—	—	24.3
Parking Lot	—	—	—	—	—	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
User Defined Industrial	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	81.8

## 4.5. Waste Emissions by Land Use

### 4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	179
Manufacturing	—	—	—	—	—	—	101
Parking Lot	—	—	—	—	—	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
User Defined Industrial	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	280

Daily, Winter (Max)	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	179
Manufacturing	—	—	—	—	—	—	101
Parking Lot	—	—	—	—	—	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
User Defined Industrial	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	280
Annual	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	29.6
Manufacturing	—	—	—	—	—	—	16.7
Parking Lot	—	—	—	—	—	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	0.00
User Defined Industrial	—	—	—	—	—	—	0.00
Total	—	—	—	—	—	—	46.3

## 4.6. Refrigerant Emissions by Land Use

### 4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	11.2
Total	—	—	—	—	—	—	11.2
Daily, Winter (Max)	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	11.2

Total	—	—	—	—	—	—	11.2
Annual	—	—	—	—	—	—	—
Manufacturing	—	—	—	—	—	—	1.86
Total	—	—	—	—	—	—	1.86

## 4.7. Offroad Emissions By Equipment Type

### 4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

## 4.8. Stationary Emissions By Equipment Type

### 4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

## 4.9. User Defined Emissions By Equipment Type

### 4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

## 4.10. Soil Carbon Accumulation By Vegetation Type

### 4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

### 4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

#### 4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—

Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—

## 5. Activity Data

### 5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	9/1/2025	10/17/2025	5.00	35.0	—
Site Preparation	Site Preparation	10/20/2025	10/31/2025	5.00	10.0	—
Grading	Grading	11/3/2025	11/28/2025	5.00	20.0	—
Building Construction	Building Construction	12/1/2025	10/16/2026	5.00	230	—
Paving	Paving	10/19/2026	11/13/2026	5.00	20.0	—
Architectural Coating	Architectural Coating	11/16/2026	12/11/2026	5.00	20.0	—

### 5.2. Off-Road Equipment

#### 5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Back hoes	Diesel	Average	0.00	8.00	84.0	0.37

Site Preparation	Crawler Tractors	Diesel	Average	4.00	8.00	87.0	0.43
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Back hoes	Diesel	Average	0.00	8.00	84.0	0.37
Grading	Crawler Tractors	Diesel	Average	3.00	8.00	87.0	0.43
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Back hoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48

## 5.3. Construction Vehicles

### 5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	12.6	LDA,LDT1,LDT2
Demolition	Vendor	—	7.75	HHDT,MHDT
Demolition	Hauling	144	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	12.6	LDA,LDT1,LDT2



Site Preparation	Vendor	—	7.75	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	12.6	LDA,LDT1,LDT2
Grading	Vendor	—	7.75	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	60.5	12.6	LDA,LDT1,LDT2
Building Construction	Vendor	23.6	7.75	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	12.6	LDA,LDT1,LDT2
Paving	Vendor	—	7.75	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	12.1	12.6	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.75	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

## 5.4. Vehicles

### 5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

## 5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	215,900	71,967	12,804

## 5.6. Dust Mitigation

### 5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	20,164	—
Site Preparation	0.00	0.00	35.0	0.00	—
Grading	0.00	0.00	50.0	0.00	—
Paving	0.00	0.00	0.00	0.00	4.90

### 5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%
Water Demolished Area	2	36%	36%

## 5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%
Manufacturing	0.00	0%
Parking Lot	2.26	100%
Other Asphalt Surfaces	2.64	100%
User Defined Industrial	0.00	0%

## 5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	1,752	349	0.03	< 0.005
2026	0.00	346	0.03	< 0.005

## 5.9. Operational Mobile Sources

### 5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMt/Weekday	VMt/Saturday	VMt/Sunday	VMt/Year
Unrefrigerated Warehouse-No Rail	111	111	111	40,452	1,043	1,043	1,043	380,803
Manufacturing	186	186	186	67,771	1,748	1,748	1,748	637,970
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	80.6	80.6	80.6	29,420	2,444	2,444	2,444	891,896

## 5.10. Operational Area Sources

### 5.10.1. Hearths

#### 5.10.1.1. Unmitigated

### 5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	215,900	71,967	12,804

### 5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

## 5.11. Operational Energy Consumption

### 5.11.1. Unmitigated

#### Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	471,561	346	0.0330	0.0040	1,942,130
Manufacturing	414,214	346	0.0330	0.0040	1,848,188
Parking Lot	86,200	346	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00
User Defined Industrial	0.00	346	0.0330	0.0040	0.00

## 5.12. Operational Water and Wastewater Consumption

### 5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	23,299,131	862,512
Manufacturing	9,985,375	0.00
Parking Lot	0.00	0.00
Other Asphalt Surfaces	0.00	0.00
User Defined Industrial	0.00	0.00

## 5.13. Operational Waste Generation

### 5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	94.7	—
Manufacturing	53.5	—
Parking Lot	0.00	—
Other Asphalt Surfaces	0.00	—
User Defined Industrial	0.00	—

## 5.14. Operational Refrigeration and Air Conditioning Equipment

### 5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Manufacturing	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

## 5.15. Operational Off-Road Equipment

### 5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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## 5.16. Stationary Sources

### 5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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### 5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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## 5.17. User Defined

Equipment Type	Fuel Type
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## 5.18. Vegetation

### 5.18.1. Land Use Change

#### 5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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### 5.18.1. Biomass Cover Type

#### 5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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### 5.18.2. Sequestration

#### 5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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## 6. Climate Risk Detailed Report

### 6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
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Temperature and Extreme Heat	4.89	annual days of extreme heat
Extreme Precipitation	4.25	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about  $\frac{3}{4}$  an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

## 6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

## 6.4. Climate Risk Reduction Measures

# 7. Health and Equity Details

## 7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	22.2
AQ-PM	74.9
AQ-DPM	59.9
Drinking Water	29.9
Lead Risk Housing	60.9
Pesticides	0.00
Toxic Releases	99.2



Traffic	59.8
Effect Indicators	—
CleanUp Sites	98.6
Groundwater	89.1
Haz Waste Facilities/Generators	99.0
Impaired Water Bodies	33.2
Solid Waste	80.0
Sensitive Population	—
Asthma	67.9
Cardio-vascular	50.0
Low Birth Weights	37.6
Socioeconomic Factor Indicators	—
Education	20.3
Housing	27.2
Linguistic	61.5
Poverty	31.5
Unemployment	45.8

## 7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	69.98588477
Employed	76.78686
Median HI	54.71577056
Education	—
Bachelor's or higher	64.6862569
High school enrollment	100

Preschool enrollment	59.39946105
Transportation	—
Auto Access	48.80020531
Active commuting	66.6495573
Social	—
2-parent households	60.25920698
Voting	41.15231618
Neighborhood	—
Alcohol availability	26.35698704
Park access	81.35506224
Retail density	98.06236366
Supermarket access	76.35057103
Tree canopy	46.19530348
Housing	—
Homeownership	30.83536507
Housing habitability	59.34813294
Low-inc homeowner severe housing cost burden	77.5439497
Low-inc renter severe housing cost burden	83.16437829
Uncrowded housing	37.99563711
Health Outcomes	—
Insured adults	44.48864365
Arthritis	63.4
Asthma ER Admissions	31.7
High Blood Pressure	66.9
Cancer (excluding skin)	38.7
Asthma	80.2
Coronary Heart Disease	66.7
Chronic Obstructive Pulmonary Disease	68.2

Diagnosed Diabetes	65.9
Life Expectancy at Birth	58.1
Cognitively Disabled	96.3
Physically Disabled	73.0
Heart Attack ER Admissions	60.8
Mental Health Not Good	66.0
Chronic Kidney Disease	73.0
Obesity	63.7
Pedestrian Injuries	70.2
Physical Health Not Good	64.0
Stroke	70.4
Health Risk Behaviors	—
Binge Drinking	36.9
Current Smoker	65.4
No Leisure Time for Physical Activity	70.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	32.5
Elderly	55.1
English Speaking	47.8
Foreign-born	48.8
Outdoor Workers	44.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	16.7
Traffic Density	61.1
Traffic Access	71.3
Other Indices	—

Hardship	35.1
Other Decision Support	—
2016 Voting	30.5

### 7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	66.0
Healthy Places Index Score for Project Location (b)	66.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

### 7.4. Health & Equity Measures

No Health & Equity Measures selected.

### 7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

### 7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

## 8. User Changes to Default Data

Screen	Justification
Construction: Off-Road Equipment	Assumed all construction will be utilized 8 hours per work day. Replaced Tractors/Loaders/Backhoes with Crawler Tractors in the Site Preparation and Grading Phases.
Operations: Vehicle Data	Adjusted trip rate to match ITE 11th edition trip rate for Manufacturing and Warehousing. Truck trips were applied to the User Defined Industrial land use, with 2 axle trucks applied to Non Res H-W (length and percentage) with a 15.3 mile trip length and 17.2840% trip percentage, 3 axle trucks applied to Non Res W-O with a 14.2 mile trip length and 20.9877% trip percentage, and 4+ axle trucks applied to Non Res O-O with 40 mile trip length and a 61.7284% trip percentage.

Operations: Fleet Mix	Vehicle splits were normalized using CalEEMod defaults and the Project's operational trip generation, User Defined Industrial was utilized to analyze 100% of trucks (HHDT, MHDT, LHDT1, LHDT2), unrefrigerated warehouse and manufacturing defaults were normalized using the CalEEMod defaults to analyze 100% passenger vehicles only (LDA, LDT1, LDT2, MCY, MDV).
Construction: Dust From Material Movement	No import/export needed.
Construction: Construction Phases	Demolition extended to account for the amount of demolition required to be removed.

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*ATTACHMENT C: FUEL CALCULATIONS*

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Model Output: OFFROAD2021 (v1.0.7) Emissions Inventory

Updated: 9.5.24

Region Type: Sub-Area

Region: Los Angeles (SC)

Calendar Year: 2025 <- Construction Start Year

Scenario: All Adopted Rules - Exhaust

Vehicle Classification: OFFROAD2021 Equipment Types

Units: tons/day for Emissions, gallons/year for Fuel, hours/year for Activity, Horsepower-hours/year for Horsepower-hours

Region	Calendar Year	VehClass	MdlYr	HP_Bin	Fuel	Fuel Consumption	Horsepower Hours	Fuel Rate
Los Angeles (SC)		2026 Construction and Mining - Rubber Tired Dozers	Aggregate	Aggregate	Diesel	200236.1302	4219514.168	0.047454783
Los Angeles (SC)		2026 Construction and Mining - Tractors/Loaders/Backhoes	Aggregate	Aggregate	Diesel	5359588.934	100894387	0.053120784
Los Angeles (SC)		2026 Construction and Mining - Graders	Aggregate	Aggregate	Diesel	801808.3578	15557225.2	0.051539291
Los Angeles (SC)		2026 Construction and Mining - Excavators	Aggregate	Aggregate	Diesel	5479149.856	106983113.7	0.051215091
Los Angeles (SC)		2026 Construction and Mining - Scrapers	Aggregate	Aggregate	Diesel	2065209.339	42944091.37	0.048090652
Los Angeles (SC)		2026 Industrial - Forklifts	Aggregate	Aggregate	Diesel	3109302.057	58386309.29	0.053253958
Los Angeles (SC)		2026 Light Commercial - Misc - Generator Sets	Aggregate	Aggregate	Diesel	1151795.618	14771265.3	0.07797542
Los Angeles (SC)		2026 Construction and Mining - Misc - Cranes	Aggregate	Aggregate	Gasoline	611697.4797	11538770.14	0.053012364
Los Angeles (SC)		2026 Light Commercial - Misc - Welders	Aggregate	Aggregate	Diesel	1279243.051	40333273.8	0.031716817
Los Angeles (SC)		2026 Construction and Mining - Pavers	Aggregate	Aggregate	Diesel	352726.9244	6846867.962	0.051516537
Los Angeles (SC)		2026 Construction and Mining - Paving Equipment	Aggregate	Aggregate	Diesel	391254.724	7646871.175	0.051165335
Los Angeles (SC)		2026 Construction and Mining - Rollers	Aggregate	Aggregate	Diesel	932502.9469	17731002.5	0.052591665
Los Angeles (SC)		2026 Light Commercial - Misc - Air Compressors	Aggregate	Aggregate	Diesel	246897.3259	8227921.25	0.030007254
Los Angeles (SC)		2026 Construction and Mining - Misc - Concrete/Industrial Saws	Aggregate	Aggregate	Diesel	9290.335209	221146.2	0.042009925
Los Angeles (SC)		2026 Construction and Mining - Crawler Tractors	Aggregate	Aggregate	Diesel	1719958.979	34066510.68	0.050488264
Los Angeles (SC)		2026 Construction and Mining - Off-Highway Trucks	Aggregate	Aggregate	Diesel	2281997.015	46637030.7	0.04893101

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: Sub-Area

Region: Los Angeles (SC)

Season: Annual 2026 Construction start year

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	Fuel Consumption	Fuel Rate
Los Angeles (SC)		2026 MHDT	Aggregate	Aggregate	Diesel	2536950.689	282.4978542	8.98
Los Angeles (SC)		2026 HHDT	Aggregate	Aggregate	Diesel	6819808.694	1098.590287	6.21
Los Angeles (SC)		2026 LHDT1	Aggregate	Aggregate	Diesel	2704306.099	130.8276817	20.67
Los Angeles (SC)		2026 LHDT2	Aggregate	Aggregate	Diesel	1209848.539	69.10133677	17.51
Average MGP From Vehicle Splits							7.555146625	

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: Sub-Area

Region: Los Angeles (SC)

Calendar Year: 2027

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	Fuel Consumption	
Los Angeles (SC)		2026 LDA	Aggregate	Aggregate	Gasoline	125598332.2	4156.999113	30.21
Los Angeles (SC)		2026 LDT1	Aggregate	Aggregate	Gasoline	10988219.26	436.9194811	25.15
Los Angeles (SC)		2026 LDT2	Aggregate	Aggregate	Gasoline	66847121.76	2677.276355	24.97

Los Angeles (SC)	2026 MCY	Aggregate	Aggregate	Gasoline	1005181.469	24.23505076	41.48
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